

Strengthening Epidemiology of Infectious Diseases Program

Prevalence and prevention of HIV infection and selected sexually
transmitted infections among the Peruvian Military Forces
and the Peruvian National Police
2007

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The Naval Medical Research Center Detachment (NMRCDC) has conducted a program in cooperation with the Committee for the Prevention and Control of AIDS (COPRECOS) of the Peruvian Armed Forces (*Fuerzas Armadas*, or FFAA) and the Peruvian National Police (PNP). This program's main goal is to strengthen the HIV surveillance and control programs already in place in the FFAA and PNP. Funding was provided by the US Department of Defense and USAID.

One of this program's primary objectives was to determine the prevalence of HIV and other sexually-transmitted infections (STIs) in the FFAA and PNP, focusing at first on major cities. Program sites were selected to include a variety of geographically and culturally diverse settings, including detachments from the north, south and jungle regions, as well as areas where the number of HIV/AIDS cases in military personnel have been increasing. Initially, sites were planned in Cuzco, Puerto Maldonado, Cajamarca and Huancayo. COPRECOS and NMRCDC investigators later substituted Trujillo and Lambayeque for Cuzco and Puerto Maldonado, respectively.

In addition, we designed this program to strengthen the FFAA and PNP's capacity for testing, counseling, training and prevention of HIV and related STIs, provide training to FFAA/PNP physicians on the recognition and treatment of HIV and related co-infections, and provide a model for HIV testing and intervention that is applicable to other Latin American military and police forces. (For activities related to this training, please see our detailed report from 2006.)

Between 5 August 2007 and 5 October 2007, a sero-epidemiological survey was conducted in the main cities and town nearby Trujillo, Chiclayo, Lambayeque, Cajamarca, and Huancayo. Several NMRCDC and COPRECOS members were deployed to these cities in close coordination with regional COPRECOS representatives and the corresponding military region commands. We also coordinated with local health authorities when and where it was needed. At these sites, COPRECOS performed HIV/STI awareness and prevention training. A clear explanation of the purpose and the methodology of the study was performed by NMRCDC personnel. We invited potential

volunteers to participate. Following the prevention training, we requested that senior authorities leave the training session to avoid undue pressure on potential study enrollees. We then presented the session participants with anonymous, voluntary questionnaires regarding their knowledge, attitudes and practices related to sexual behavior. To assure anonymity, the surveys were given to all individuals at the site simultaneously; all participants were required to keep it for at least 15 minutes, regardless of whether they decided to fill it out or not. The participants then folded the survey and placed it into a black box. Approximately 3,081 completed questionnaires were obtained.



No recruits or students were invited to participate. (HIV-positive military recruits and students are dismissed from government service upon diagnosis.) However, the COPRECOS team provided condoms and HIV/STI prevention workshops for them. COPRECOS also was responsible for training the counselors responsible for HIV pre-and post test counseling at all FFAA/PNP sites.

Table 1. Distribution of participants who provided anonymous questionnaires by site and institution.

| Site / institution | Questionnaires | |
|---------------------------|----------------|---------------|
| | Count | % |
| Total | 3081 | 392.5% |
| <u>La Libertad</u> | 785 | 100.0% |
| Army | 171 | 21.8% |
| Police | 614 | 78.2% |
| <u>Lambayeque</u> | 1329 | 169.3% |
| Army | 271 | 34.5% |
| Air Force | 278 | 35.4% |
| Police | 780 | 99.4% |
| <u>Cajamarca</u> | 370 | 47.1% |
| Army | 27 | 3.4% |
| Police | 343 | 43.7% |
| <u>Huancayo</u> | 597 | 76.1% |
| Army | 138 | 17.6% |
| Police | 459 | 58.5% |

We have prepared a summary of preliminary results of the 3,081 returned questionnaires. Participants were mostly men (89%) and mainly from the PNP (71%). Non-commissioned officers were the largest group represented (49%). The mean age was 39.4 years (range: 15-76). Most participants were married (72.8%). The overwhelming majority (99.5%) of the study population reported having had sex. The median age of sexual debut was 17 years (SD=3). The median number of sexual partners during the last 3 months was one. One of every ten trainees reported that their last sex partner was a sporadic partner (e.g., a commercial sexual worker, casual friend or other) rather than a regular partner. 21% of FFAA/PNP personnel used condoms during their most recent sexual encounter. The most common reason given for not using barrier protection was that the participant did not think that it was necessary (30.7%). Rates of condom use were higher when participants had sex with commercial sex workers (67.9%); rates were much lower when during sexual encounters with a spouse (18.2%) or fiancé(e) (19.1%). Rates of condom use with sex workers were lower in Cajamarca (50%) and in Trujillo (40%). Other potentially high-risk groups (such as those identified as “friends”) had rates of condom use of only 26.8%.

Table 2. Distribution by site and institution of participants who provided blood samples.

| Site/Institution | Samples | |
|---------------------------|-------------|---------------|
| | Count | % |
| Total | 3631 | 100.0% |
| <u>La Libertad</u> | 818 | 22.5% |
| Army | 204 | 5.6% |
| Police | 614 | 16.9% |
| <u>Lambayeque</u> | 1532 | 42.2% |
| Army | 290 | 8.0% |
| FAP | 292 | 8.0% |
| Police | 950 | 26.2% |
| <u>Cajamarca</u> | 469 | 12.9% |
| Army | 46 | 1.3% |
| Police | 423 | 11.6% |
| <u>Huancayo</u> | 812 | 22.4% |
| Army | 124 | 3.4% |
| Police | 688 | 18.9% |

A total of 3,631 blood samples were collected. Laboratory testing for HIV, syphilis, hepatitis B, HTLV-I, and HTLV-II and herpes was performed. After confirmatory testing was concluded for the Lambayeque and La Libertad participants, the NMRCO and COPRECOS-Lima teams traveled to those sites to coordinate the confidential notification of results. Trained health care professionals provided the results to affected participants along with post-testing counseling. All individuals who were

found to be positive for any of the tested infections were referred for appropriate medical care.

We observed that the rate of HIV infection is low. However, better STI prevention practices are needed due to high rates of other prevalent infections in this population.

We plan to travel to Cajamarca and Huancayo by the third week of November in order to provide further test results. NMRCD and COPRECOS investigators have requested an interview with the authorities at the Peruvian Ministry of Defense to present this data and to request approval for publication. (We are seeking high-level approval from the Peruvian authorities, given the potentially-sensitive data in this report.)